



487136

INTEROFFICE COMMUNICATION

RECEIVED

EPA REGION 5

March 2, 2000

MAR 16 2000

FILE

COUNTY

TO: Gary Klepper, Supervisor  
Southeast Michigan District Office  
Environmental Response Division

FROM: Arthur Ostaszewski, Aquatic Biologist  
Great Lakes and Environmental Assessment Section  
Surface Water Quality Division

SUBJECT: BASF-Riverview Site, Jefferson Avenue, Riverview, Wayne County, Michigan

We would like to take the opportunity to respond to your January 10, 2000 Interoffice Communication concerning the BASF-Riverview Site on Jefferson Avenue in Wayne County, Michigan. In the memo, you requested our position on: 1) the risks imposed by the release, 2) the need for corrective action, and 3) the priority of this site. In terms of responding to your memo, our interpretation of the "site" is inclusive of the sediments offshore and is not limited to just the upland area.

- 1) In reference to risks concerning the release of mercury from the upland area, any release to the Detroit River greater than water quality standards (0.0013 ng/l) due to site contamination is unacceptable. The data supplied appears to indicate that such releases are occurring. The Detroit River presently has a mercury water quality problem. Any additional releases add to the unacceptable risks already there.
- 2) In reference to the need for corrective action, there is the need for immediate corrective action on both the upland site and the sediments offshore. The remediation of the sediments should not be contingent upon or delayed due to remediation of the upland site.

In the Environmental Response Division's "Proposed Recommendations" (Interoffice Communication: December 28, 1999 to Dan Schultz), it was recommended that "BASF be informed that they must implement an interim remedial action," including immediate actions cutting off groundwater flow to the river and "submit an action plan with detailed schedules for implementation of action." This response appears appropriate for the upland area. We recommend that the requested action include the following with regards to the sediments:

"We recommend immediate development and implementation of sediment remedial measures that will return sediments to levels which do not cause or contribute to exceedances of water quality standards. The remediation of sediments should include all contaminated sediments from the terminus of the former SouthWorks property to the base of the BASF-Riverview Site (as identified as being leased to the City of Riverview), from the shoreline to the west edge of the navigation channel, and from the surface of the sediments to the clean clay (till) layer that lines the Detroit River."

We have recently concluded sampling the sediments throughout the Detroit River as part of a system-wide sediment assessment. The sediments in the vicinity of the BASF-Riverview site have been identified as containing the highest levels of mercury, PCBs, and cadmium in the Detroit River (Ostaszewski, A., 1997. Results of the Trenton Channel Sediment surveys, SWQD Report #MI/DEQ/SWQ-97/084, [http://www.deq.state.mi.us/swq/gleas/docs/seds/tcsurvey/Trenton\\_Channel\\_Sediment\\_Results\\_1997.pdf](http://www.deq.state.mi.us/swq/gleas/docs/seds/tcsurvey/Trenton_Channel_Sediment_Results_1997.pdf)). The sediments in this area have the highest levels of bioaccumulative contaminants in the Detroit River.

The current concentrations of contaminants in the sediments at this site are typically 10 to 1000 times higher than the levels identified in the wells (leachate). The historic activities (pre-NPDES) of the chlor-alkali facility operated by BASF-Wyandotte Chemical, known as "SouthWorks," are well documented and are believed to be the primary source of the contamination to the sediments.

Historically, the commercial fishery in the western basin of Lake Erie closed in 1973 and consumption advisories first began due to elevated levels of mercury in fish. The closure of the Lake St. Clair fishery followed a year later in 1974. The source was traced back to the unregulated discharge of mercury from the manufacture of chlorine by chlor-alkali facilities using the mercury-cell process. On the Detroit River, these plants began operations in the mid 1950s. Wyandotte Chemical SouthWorks (bought out by BASF) was the largest of two chlor-alkali plants on the Detroit River, the other being operated by Pennwalt (bought out by Elf-Atochem). The adjoining SouthWorks and Pennwalt facilities ceased operations around 1974 when mercury discharges were coming under regulation due to fish contamination. They were demolished, with the rubble and debris deposited into the BASF-Riverview site.

While the upland is likely a source of mercury to the waters of the Trenton Channel, we believe the sediments have been and continue to be a source of mercury and other contaminants to the Detroit River. These sediments require a remedial response.

- 3) Remediation of the sediments at this site has been identified as a priority in the Detroit River Remedial Action Plan (MDEQ, 1996), the Trenton Channel Sediment Surveys (Ostaszewski, 1997), and as one of nine sites under potential Clean Michigan Initiative Bond Funding. All efforts should be made to have BASF rapidly and effectively address all contamination issues associated with sediments and upland areas.

ao:ls

cc: Ben Okwumabua, WMD  
Hae-Jin Yoon, Southeast Michigan District Office, SWQD  
Robert Sweet, SWQD  
William Creal/Detroit River 307 File